

CLAIMS:

1. A labeled resin bottle, comprising a resin bottle and one or more labels placed thereon and fused therewith, wherein said resin bottle has a value of $W/(V^{2/3})$ within a range from about 0.1 to 0.5, wherein W is a base weight thereof, and V is a fill-in volume, thereof, provided that when the value is about 0.1 or larger and smaller than about 0.3, the bottle has a major thick layer consisting essentially of a polyolefinic resin having a stiffness of about 5,000 kgf/cm² or below, and wherein said label has a tensile elastic modulus of about 5,000 to 30,000 kgf/cm².

2. The labeled resin bottle of Claim 1, wherein the tensile elastic modulus of the label is about 10,000 to 25,000 kgf/cm².

3. The labeled resin bottle of Claim 1, wherein the label contains polypropylene-base resin.

4. The labeled resin bottle of Claim 1, wherein the label is capable of being used for in-mold forming, comprising a thermoplastic resin film base layer having on one surface thereof a heat-sealing resin layer which is to be faced to the resin bottle, thereby allowing the label to be fused therewith.

5. The labeled resin bottle of Claim 4, wherein the thermoplastic resin film base layer comprises a fine porous stretched resin film containing an inorganic or organic fine powder.

6. The labeled resin bottle of Claim 4, wherein the heat-sealing resin layer is embossed.

7. The labeled resin bottle of Claim 1, wherein the label has a thickness of about 40 to 250 μm .

8. The labeled resin bottle of Claim 7, wherein the label has a thickness of 50 to 200 μm .

9. The labeled resin bottle of Claim 1, wherein the value of $W/(V^{2/3})$ of the resin bottle is within a range of from about 0.3 to 0.5.

112² 10. The labeled resin bottle of Claim 9, wherein the resin bottle comprises a mouth/shoulder portion, a barrel portion and a bottom portion, and thickness ratio of the barrel portion in respect to a minimum thickness of the mouth/shoulder portion and the bottom portion including a bottom corner portion of within a range of from about 0.1 to 0.9.

112² 11. The labeled resin bottle of Claim 10, wherein the thickness ratio is thin a range from about 0.2 to 0.8.

12. The labeled resin bottle of Claim 9, wherein the barrel portion has a primary curved surface, and the label is placed on such primary curved surface.

13. The labeled resin bottle of Claim 12, wherein the primary curved surface composing the barrel portion is responsible for the start of deformation when compressive load is applied from the mouth portion of the resin bottle.

14. The labeled resin bottle of Claim 9, wherein the resin bottle is produced by direct blow molding using a polyolefinic resin as a major material.

15. The labeled resin bottle of Claim 9, wherein the resin bottle is produced by injection stretching blow molding using a polyolefinic resin as a major material.

16. The labeled resin bottle of Claim 1, wherein a value of $W/(V^{2/3})$ of the resin bottle is within a range from about 0.1 or above and less than about 0.3.

17. The labeled resin bottle of Claim 16, wherein the resin bottle is self-standing.

5 18. The labeled resin bottle of Claim 16, wherein the polyolefinic resin is composed mainly of an ethylene- α -olefinic copolymer which is polymerized using a metallocene-base catalyst and has a density of about 0.850 to 0.915g/cm³.

11/2 antecedent
19. The labeled resin bottle of Claim 16, wherein the metallocene-base catalyst is a metallocene-alumoxane catalyst or a mixture of a metallocene compound and a compound capable of forming a stable anion by reacting therewith.

20. The labeled resin bottle of Claim 1, wherein three or more discontinuous labels are placed on the resin bottle so as to be aligned along the peripheral direction of the lateral section of the barrel portion, and fused by in-mold forming along the vertical direction of the barrel portion.

21. The labeled resin bottle of Claim 9, which comprises three or more discontinuous labels thereon.

22. The labeled resin bottle of Claim 21, wherein said three or more discontinuous labels are placed on the resin bottle so as to be aligned along a peripheral section of a lateral section of the barrel portion; and fused by in-mold forming along a vertical direction of the barrel portion.

23. The labeled resin bottle of Claim 21, which comprises three to six discontinuous labels thereon.

24. The labeled resin bottle of Claim 1, having a sectional shape of polygons higher than square and having said one or more labels placed on an edge thereof, said edge being a chamfered edge having a chamfering radius of 5 mm or above.